AMENDMENTS TO THE CLAIMS

Please amend claims 1, 2, 4, 5, 22, 35, and 66, as shown in the following listing of claims, which will replace all prior versions and listings of claims in the application. The amendments to claims 1, 2, 4, 5, 22, 35, and 66 are made without prejudice to pursuit of the previous claims in an appropriate divisional or continuation application. Claims 1-15, 17-18, 20-35 and 66 are currently in the application.

Listing of the claims:

1 (currently amended). A method for isolating and storing nucleic acid, comprising:

a. providing a solid phase medium;

b. applying a sample comprising cells containing nucleic acid to the solid phase medium;

c. subsequent to step b, retaining the cells with the solid phase medium as a cellular retentate comprising intact cells and removing contaminants;

d. ~~subsequently~~subsequent to step c, contacting intact cells in the cellular retentate in the solid phase medium with a solution comprising (i) an anionic surfactant or detergent, (ii) a weak base, and (iii) a chelating agent by adding the solution comprising (i) the anionic surfactant or detergent, (ii) the weak base, and (iii) the chelating agent to the solid phase medium having the cellular retentate;

e. subsequent to step d, lysing the intact cells in the cellular retentate to form a cell lysate while retaining the cell lysate in the medium, the cell lysate comprising the nucleic acid;

f. ~~subsequently~~subsequent to step e, drying the solid phase medium with the cell lysate comprising the nucleic acid; and

g. subsequent to step f, storing the dried solid phase medium with the nucleic acid.

2 (currently amended). The method of claim 1, wherein, subsequent to lysis step e and prior to drying step f, the solid phase medium with the nucleic acid is washed to remove contaminants while the nucleic acid is retained in the solid phase medium.

3 (previously presented). The method of claim 1, wherein the dried solid phase medium with the nucleic acid in step g is maintained at a temperature of 5°C to 40°C.

4 (currently amended). The method of claim 1, further comprising:

h. subsequent to step g, eluting the nucleic acid from the solid medium.

5 (currently amended). The method of claim 4, wherein, subsequent to drying step f or storing step g and prior to eluting step h, the dried solid phase medium with the nucleic acid is washed to remove contaminants while the nucleic acid is retained in the solid phase medium.

6 (original). The method of claim 4, wherein the storage of the nucleic acid in step g has a duration of at least one week.

7 (original). The method of claim 4, wherein the storage of the nucleic acid in step g has a duration of at least one month.

8 (original). The method of claim 4, wherein the storage of the nucleic acid in step g has a duration of at least three months.

9 (original). The method of claim 4, wherein the storage of the nucleic acid in step g has a duration of at least five months.

10 (original). The method of claim 1, wherein the solid phase medium comprises a filter comprising a plurality of fibers.

11 (previously presented). The method of claim 10, wherein the filter has a disordered structure.

12 (original). The method of claim 10, wherein the fiber diameters are in the range of from 1 μm to 10 μm.

13 (previously presented). The method of claim 10, wherein the filter comprises one or more pores having a pore size from 0.2 μm to 2.7 μm.

14 (original). The method of claim 1, wherein the solid phase medium comprises:

a. a glass or silica-based solid phase medium;

b. a plastics-based solid phase medium; or

c. a cellulose-based solid phase medium.

15 (original). The method of claim 1, wherein the solid phase medium is selected from one of the following: glass, glass fiber, glass microfiber, silica, silica gel, silica oxide, cellulose, nitrocellulose, carboxymethylcellulose, polyester, polyamide, carbohydrate polymers, polypropylene, polytetrafluoroethylene, polyvinylidinefluoride, wool, or porous ceramics.

16 (canceled).

17 (previously presented). The method of claim 1, wherein the anionic surfactant or detergent comprises sodium dodecyl sulfate.

18 (currently amended). The method of claim 17, wherein the concentration of the sodium dodecyl sulfate is between about 0.5% and about 5% weight/volume.

19 (canceled).

20 (previously presented). The method of claim 1, wherein the solution of step d further comprises:

iv. uric acid or a urate salt.

21 (previously presented). The method of claim 1, wherein the cellular retentate comprises condensed material from a cellular nucleus.

22 (currently amended l). The method of claim 1, wherein the cellular retentate comprises intact whole cells and wherein step e comprises:

i. rupturing the intact whole cells retained by the solid phase medium to leave condensed material from the nucleus retained by the medium; and

ii. subsequent to step i, lysing the condensed material from the nucleus to form the cell lysate containing the nucleic acid.

23 (previously presented). The method of claim 1, wherein the composition and dimensions of the solid phase medium are selected so that the nucleic acid is retained by the medium in step e by non-ionic interactions.

24 (original). The method of claim 23, wherein the non-ionic interactions comprise dipole-dipole interactions, dipole-induced dipole interactions, dispersion forces, or hydrogen bonding.

25 (original). The method of claim 1, wherein the retaining step e is further defined as physically retarding the movement of the nucleic acid through the solid phase medium.

26 (original). The method of claim 1, wherein the solid phase medium is capable of retaining the cells and the nucleic acid in the absence of a chaotrope.

27 (original). The method of claim 1, wherein step b further comprises concentrating the cells in the solid phase medium.

28 (original). The method of claim 4, wherein the nucleic acid is heated to an elevated temperature of 65°C to 125°C prior to eluting step h.

29 (original). The method of claim 4, wherein the nucleic acid is heated to an elevated temperature of 80°C to 95°C prior to eluting step h.

30 (original). The method of claim 1, wherein the cells are selected from the group consisting of white blood cells, epithelial cells, buccal cells, tissue culture cells, semen, vaginal cells, urinary tract cells, plant cells, bacterial cells, and colorectal cells.

31 (original). The method of claim 1, wherein the cells are white blood cells and the method further comprises applying whole blood to the solid phase medium, optionally lysing the red blood cells therefrom, optionally washing the solid phase medium to remove contaminants, and obtaining the cell lysate from the white blood cells.

32 (original). The method of claim 1, wherein the sample comprises blood cells and the dimensions of the solid phase medium are selected so that the majority of the cells retained in step c comprise white blood cells.

33 (original). The method of claim 1, wherein the nucleic acid comprises DNA or RNA.

34 (original). The method of claim 1, wherein the nucleic acid comprises genomic DNA.

35 (currently amended). A method for isolating and storing nucleic acid, comprising:

a. providing a solid phase medium;

b. applying a sample comprising cells containing nucleic acid to the solid phase medium and concentrating the cells in the solid phase medium;

c. subsequent to step b, retaining the concentrated cells with the solid phase medium as a concentrated cellular retentate comprising intact cells and removing contaminants;

d. ~~subsequently~~subsequent to step c, contacting the intact cells in the concentrated cellular retentate in the solid phase medium with a single solution by adding the single solution to the solid phase medium having the cellular retentate, the single solution simultaneously comprising:

i. a weak base;

ii. a chelating agent; and

iii. an anionic surfactant or detergent;

e. subsequent to step d, lysing the intact cells in the concentrated cellular retentate to form a cell lysate while retaining the cell lysate in the medium, the cell lysate comprising the nucleic acid;

f. ~~subsequently~~subsequent to step e, drying the solid phase medium with the cell lysate comprising the nucleic acid;

g. subsequent to step f, storing the dried solid phase medium with the nucleic acid for at least one week; and

h. subsequent to step g, eluting the nucleic acid from the solid phase medium.

36. – 65. (canceled)

66 (currently amended). A method for isolating and storing DNA, comprising:

a. providing a solid phase medium, wherein the solid phase medium comprises a filter comprising a plurality of fibers, wherein the fibers comprise:

i. glass or silica-based fibers;

ii. plastics-based fibers; or

iii. nitrocellulose or cellulose-based fibers;

b. applying a sample comprising cells containing DNA to the solid phase medium and concentrating the cells in the solid phase medium;

c. subsequent to step b, retaining the concentrated cells with the solid phase medium as a concentrated cellular retentate comprising intact cells and removing contaminants;

d. ~~subsequently~~subsequent to step c, contacting the intact cells in the concentrated cellular retentate in the solid phase medium with a single solution by adding the single solution to the solid phase medium having the concentrated cellular retentate, the single solution simultaneously comprising:

i. a weak base;

ii. a chelating agent; and

iii. an anionic surfactant or detergent;

e. subsequent to step d, lysing the intact cells in the concentrated cellular retentate to form a cell lysate while retaining the cell lysate in the medium, the cell lysate containing DNA;

f. ~~subsequently~~subsequent to step e, drying the solid phase medium with the cell lysate comprising the DNA;

g. subsequent to step f, storing the dried solid phase medium with the DNA at a temperature of 5°C to 40°C for at least one week;

h. subsequent to step g, heating the DNA with the solid phase medium to an elevated temperature of 65°C to 125°C; and

i. subsequent to step h, eluting the DNA from the solid phase medium.

67. – 76. (canceled)